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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,582	09/25/2003	Clifton Harold Bromley	03SW169 / ALBRP314US	7480
7590 Susan M. Donahue Rockwell Automation, 704-P, IP Department 1201 South 2nd Street Milwaukee, WI 53204			EXAMINER KENNEDY, ADRIAN L	
			ART UNIT 2129	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/670,582

Applicant(s)

BROMLEY ET AL.

Examiner

ADRIAN L. KENNEDY

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36-39 is/are allowed.
- 6) ☒ Claim(s) 1-23, 29-35, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 24-28 and 40 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Examiner's Detailed Office Action

1. This Office Action is responsive to **Amendment After Non Final**, filed **January 7, 2008**.
2. **Claims 1-40** will be examined.

Claim Objections

Claims 24 and 40 are objected to because of the following informalities: The examiner takes the position that it is not clear whether the parenthetical elements are part of the claimed invention or not. The examiner respectfully request that if said element is part of the claimed invention, that the parenthesis be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. "Software objects that renders data" is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18-23, 33-35, 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff et al. (USPubN 2003/0120714, referred to as Wolff.)

Regarding claim 18:

Wolff teaches,

a device analyzer that determines properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data (Wolff: ¶ 0017; Examiner's Note(EN): The examiner takes the position that the applicant's claimed "device analyzer" is inherent in the invention of Wolff. This inherency is based on the fact that the determining of the appropriate data speed and resolution (i.e. properties and/or limitations) would not have been possible without some form of a "device analyzer" in the invention of Wolff. Furthermore, the examiner asserts that in teaching the function of determining "limitations and/or properties" Wolff anticipates the broadly claimed "device analyzer".);

an identification component that determines if a format or a sub-format of data is known to the system (Wolff: ¶ 0052; EN: The examiner takes the position that the applicant's claimed "identification component" is inherent in the invention of Wolff. This inherency

is based on the fact that the determining if a format or sub-format of data is known reads on the determining of an acceptable format as taught by Wolff. Furthermore, it would have been obvious to one of ordinary skill that if the format is not known by the "system" that said format is not acceptable to the "system");

an artificial intelligence component that determines the format of unknown data received by a Human Machine Interface (HMI) (Wolff: ¶ 0052; EN: The examiner has found that in not further defining the applicant's claimed "artificial intelligence component" in the claimed invention, the examiner has found that the claimed "artificial intelligence component" is a subset of and therefore reads on the variety of techniques for converting the data into and acceptable format as taught by Wolff.); and

a processing component that renders the data in the HMI into a suitable format based at least in part on the properties, limitations, or software plug-ins of the device (Wolff: ¶ 0052 and 0078).

Regarding claim 19:

Wolff teaches,

(Currently Amended) The artificial intelligence component locates and renders a partial data set (Wolff: ¶ 0054).

Regarding claim 20:

Wolff teaches,

(Currently Amended) The system further comprising a memory which stores previously unknown data types for comparison to compare with future data (Wolff: ¶ 0051; EN: The examiner has found that the applicant's claimed "storing" reads on the storing of preferred formats.).

Regarding claim 21:

Wolff teaches,

(Currently Amended) The system [wherein] the HMI renders the data into at least one of text, audio, video, static images, interactive images (Wolff: ¶ 0078).

Regarding claim 22:

Wolff teaches,

(Currently Amended) The system [wherein] the processing component provides providing an error message when data cannot be rendered (Wolff: ¶ 0066; The examiner takes the position that it would have been obvious to one of ordinary skill in the art, that an error message is presented in a web browser when said browser is unable to render web page data, due to an inability to reach a particular web page.).

Regarding claim 23:

Wolff teaches,

(Currently Amended) The system [wherein] the processing component further renders data into suitable formats or sub-formats compatible with display capabilities of a device on which the data is to be presented (Wolff: ¶ 0056).

Regarding claim 33:

Wolff teaches,

determining formatting requirements (Wolff: ¶ 0052), properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data (Wolff: ¶ 0017);

formatting the data based at least in part on the properties, limitations, or software plug-ins of the devices (Wolff: ¶ 0044); and

delivering the formatted data to the respective devices (Wolff: ¶ 0017).

Regarding claim 34:

Wolff teaches,

(Currently Amended) The method further comprising reformatting data associated with an existing Human Machine Interface (HMI) for delivery to a newly detected device based at least in part on the determined formatting requirements of the newly detected device (Wolff: ¶ 0043-0044, modifying a generic application interface into a PDA-specific interface).

Regarding claim 35 and 38:

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Wolff teaches,

receiving data from a physical device to a Human Machine Interface (HMI) (Wolff: ¶ 0017);

ascertaining formatting requirements (Wolff: ¶ 0052), properties, limitations, or software plug-ins associated with the physical device (Wolff: ¶ 0017);

comparing format of the data to data formats known to the HMI (Wolff: ¶ 0052);

determining the format of unknown data received by the HMI (Wolff: ¶ 0052); and

rendering the data in the HMI into a suitable format based at least in part on the properties, limitations, or software plug-ins of the device (Wolff: ¶ 0052 and 0078).

Regarding claim 38 the examiner asserts that in teaching the function of claim 38, the means for performing said function is inherent.

Regarding claim 37:

Wolff teaches,

means for determining to determine properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data (Wolff: ¶ 0050 and 0052);

means for formatting to format the data based at least in part on the properties, limitations, or software plug-ins of the devices (Wolff: ¶ 0044); and

means for delivering the formatted data to the respective devices (Wolff: ¶ 0050).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff et al. (USPubN 2003/0120714, referred to as Wolff) in view of Shteyn (USPN 6,199,136, referred to as Shteyn).

Regarding claims 29:

Wolff teaches

a Human Machine Interface (HMI) an generator that formats data based at least in part on the properties, limitations, or software plug-ins of the devices (P 0044).

Shteyn teaches

a software object generator that determines properties, limitations, or software plug-ins associated with a plurality of devices intended for creation of the software objects; and (Shteyn: col. 6, lines 14-17; col. 4, lines 5-25); and

It would have been obvious to one ordinary skill in the art to combine the human machine interface of Wolff with the machine interface of Shteyn for the purpose of controlling devices using abstract representations (Shteyn: C 1, L 57-58).

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Regarding claim 30:

Shteyn teaches,

(Currently Amended) The system further comprising an artificial intelligence component that recognizes a new device added to the system (Shteyn: col. 4, lines 27-50).

Regarding claim 31:

Shteyn teaches,

(Currently Amended) The system further comprising an identification component that recognizes substantially all the components coupled to the system (Shteyn: col. 4, lines 20-25).

Regarding claim 32:

Shteyn teaches,

(Currently Amended) The system further comprising a mapping component that provides element to provide connectivity to the physical devices (Shteyn: col. 3, lines 37-39).

Response to Arguments

Applicant's arguments filed on January 7, 2008 have been fully considered but are found to be non-persuasive. The unpersuasive arguments made by the Applicant are stated below:

In reference to Applicant's argument

However, Wolff *et al.* does not disclose *determining properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data and rendering the data based at least in part on the properties, limitations, or software plug-ins of the device.*

Examiner's response:

The examiner has considered the applicant's above arguments and has presented a new grounds of rejection as set forth above.

In reference to Applicant's argument

Furthermore, the cited reference is silent with regard to *converting 3-dimensional data into 2-dimensional data (or vice versa) based at least in part on properties, limitations, or software plug-ins of the device*, eliminating the advantage of rendering in 2-dimensions when appropriate, and utilizing 3-dimensional data transformation based on resources and limitations.

Examiner's response:

The examiner has considered the applicant's above arguments and has presented a new grounds of rejection as set forth above.

In reference to Applicant's argument

However, unlike the claimed invention, Shteyn is silent with regard to *mapping data path information to data delivered to the physical device to enable communication between the data and a Human Machine Interface (HMI)*, and thus fails to provide the advantage of enabling changes to a data path to be tracked, mitigating loss of data connectivity

Examiner's response:

The examiner has considered the applicant's above arguments and has presented a new grounds of rejection as set forth above.

Conclusion

Examiner's Opinion:

The examiner has considered the applicant's arguments in light of the claimed invention.

Furthermore, the examiner respectfully reminds the applicant that **“during examination, the claims must be interpreted as broadly as their terms reasonably allow”**. (MPEP 2111.01 [R-5] I)

It is the goal of the Examiner to move the applicant's claimed invention towards allowability. However, as presently claimed, the applicant's claimed invention is substantially broad and is broad enough to read on the prior art of record. The examiner respectfully request that the applicant consider what the invention is, and where the line between the prior art (cited by the examiner and/or known by the applicant) and the applicant's intended invention lay. Also, the examiner is more than willing to have an interview with applicant, but requests that the applicant disclose what he or she considers to be the most inventive portion of the claimed and/or disclosed invention.

Should the applicant choose to amend, the Examiner respectfully suggests that the applicant consider changing “converting 3-dimensional data into 2-dimensional data (or vice-versa) based at least in part” to “converting 3-dimensional data into 2-dimensional data or converting 2-dimensionsional data into 3-dimensional based at least in part” (Overcomes Claim Objection of claims 24 and 40), making a statement along the lines of the "artificial intelligence component determines the format of unknown data received by a Human Machine Interface(HMI) using classification and/or clustering" (Supported on page 19. Classification and/or clustering are distinct from the “variety of techniques” taught by the prior art, because they are more than just converting and/or compression

which is what is performed by the “variety of techniques”), changing “a processing component that creates one or more multi-dimensional software objects that renders data” to “a processing component that creates one or more multi-dimensional software objects and that renders data based” (Overcomes 112 Rejection of claim 1. The examiner presently interprets the software objects as rendering data instead of the processing component rendering the data, which is what the applicant intends to claim. Furthermore, if the correction is made to claim 1 it will not be allowable over the prior art.), including the language of “converting 3-dimensional data...” in other independent claims, and/or including the language of “mapping data path information” in other independent claims. (The previously cited suggestions are not a recitation of allowable subject matter, but are rather subject matter disclosed/claimed by the applicant which will help further distinguish the claimed invention from the prior art. Furthermore, any amendment will require further searching of the prior art.).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claims 1-23, 29-35, and 37-38 are rejected.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrian L. Kennedy whose telephone number is (571) 270-1505. The examiner can normally be reached on Mon -Fri 8:30am-5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALK

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